

FIG.1

FIG.2

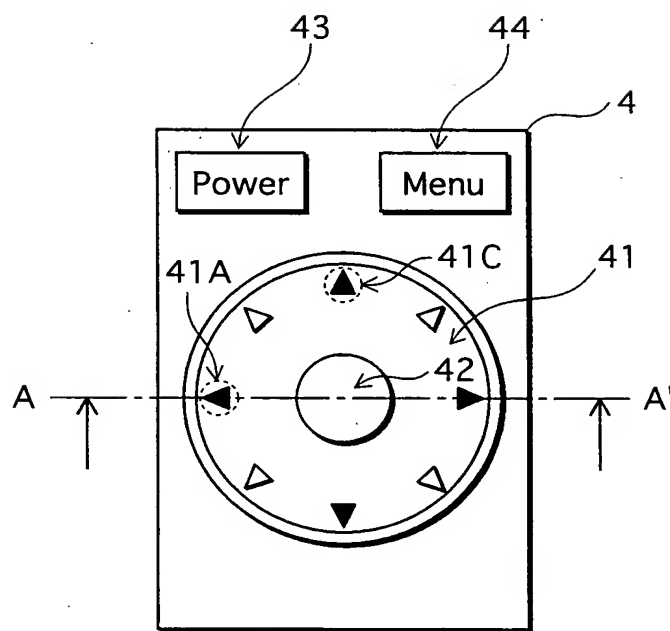


FIG.3

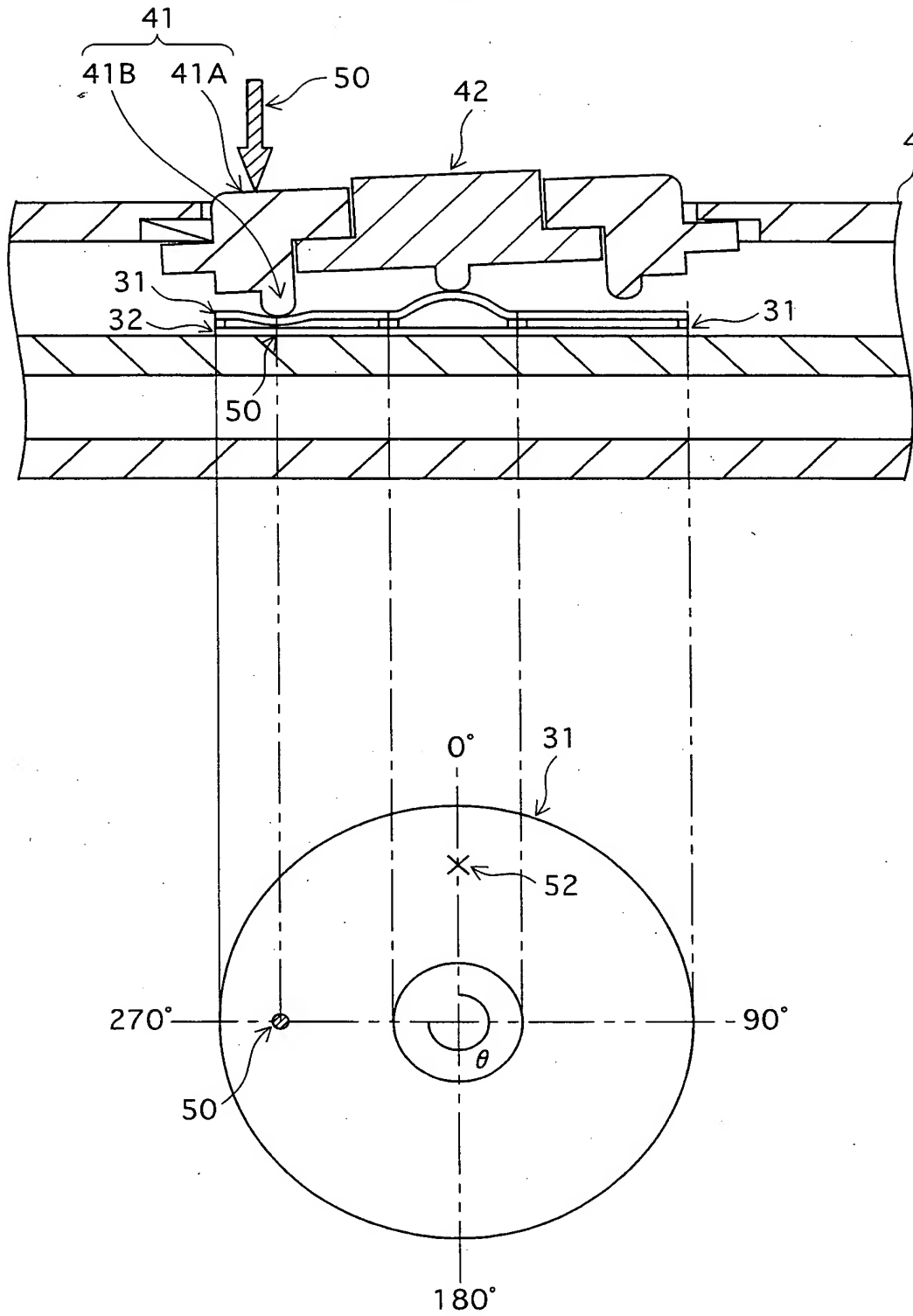


FIG.4

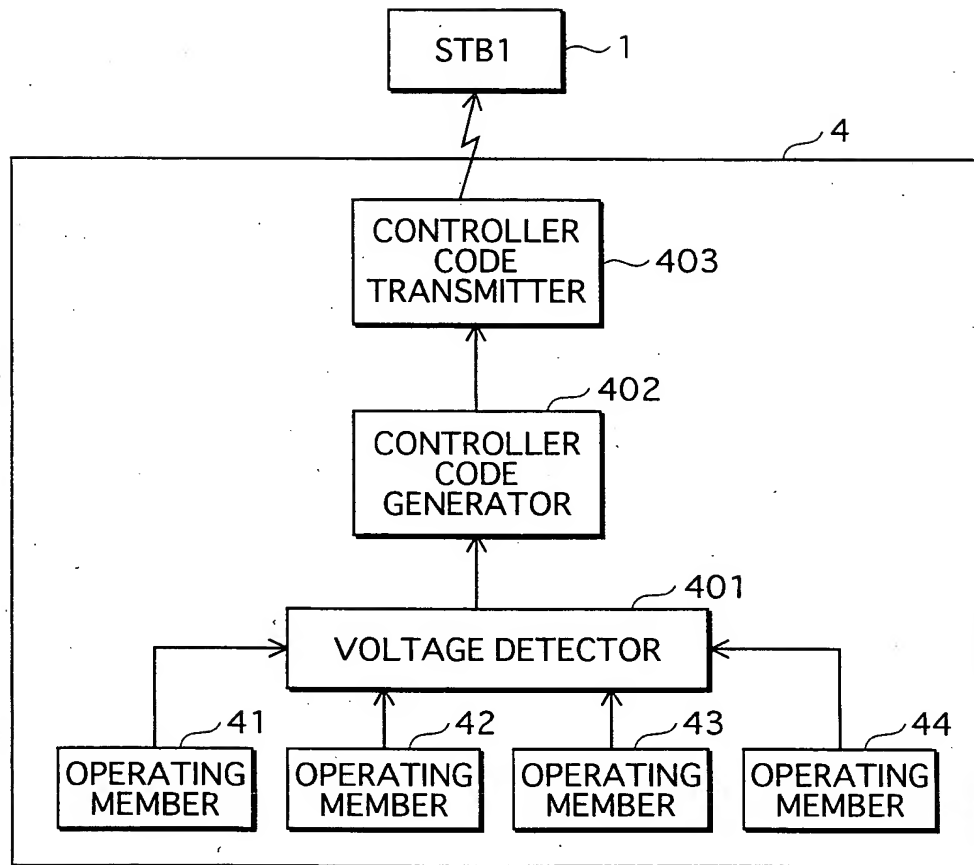


FIG. 5

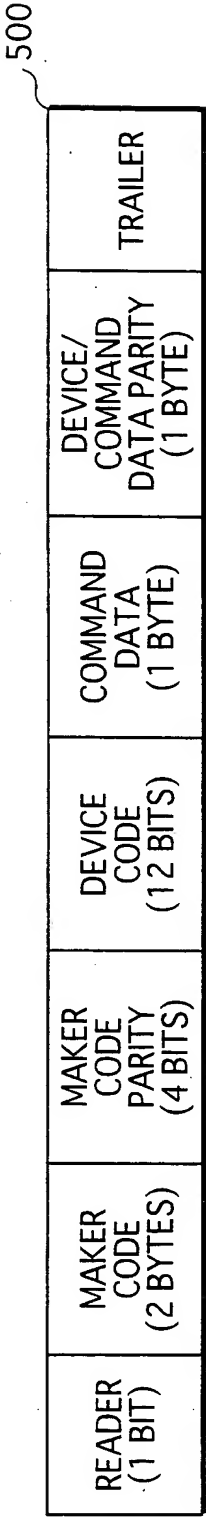


FIG.6

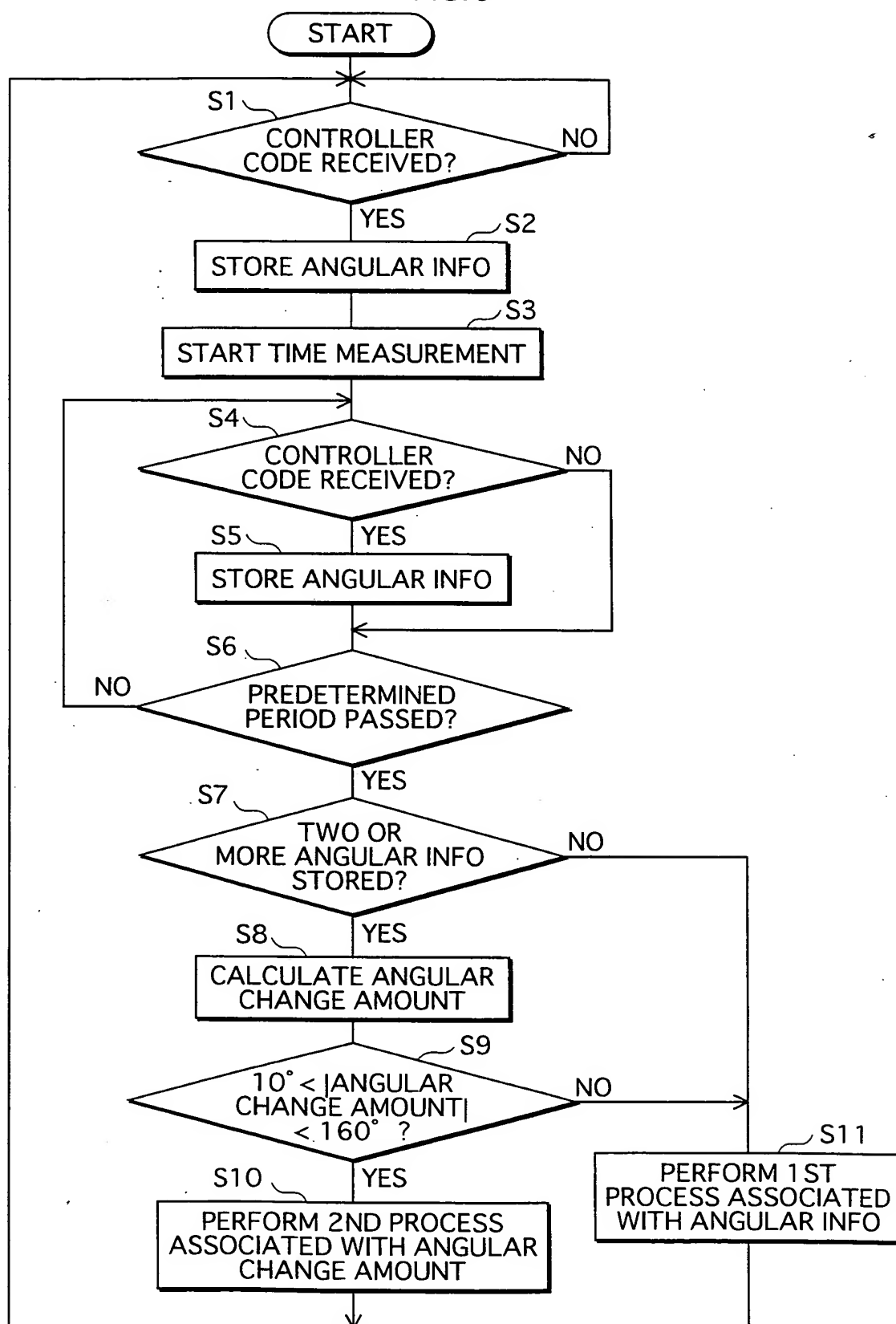
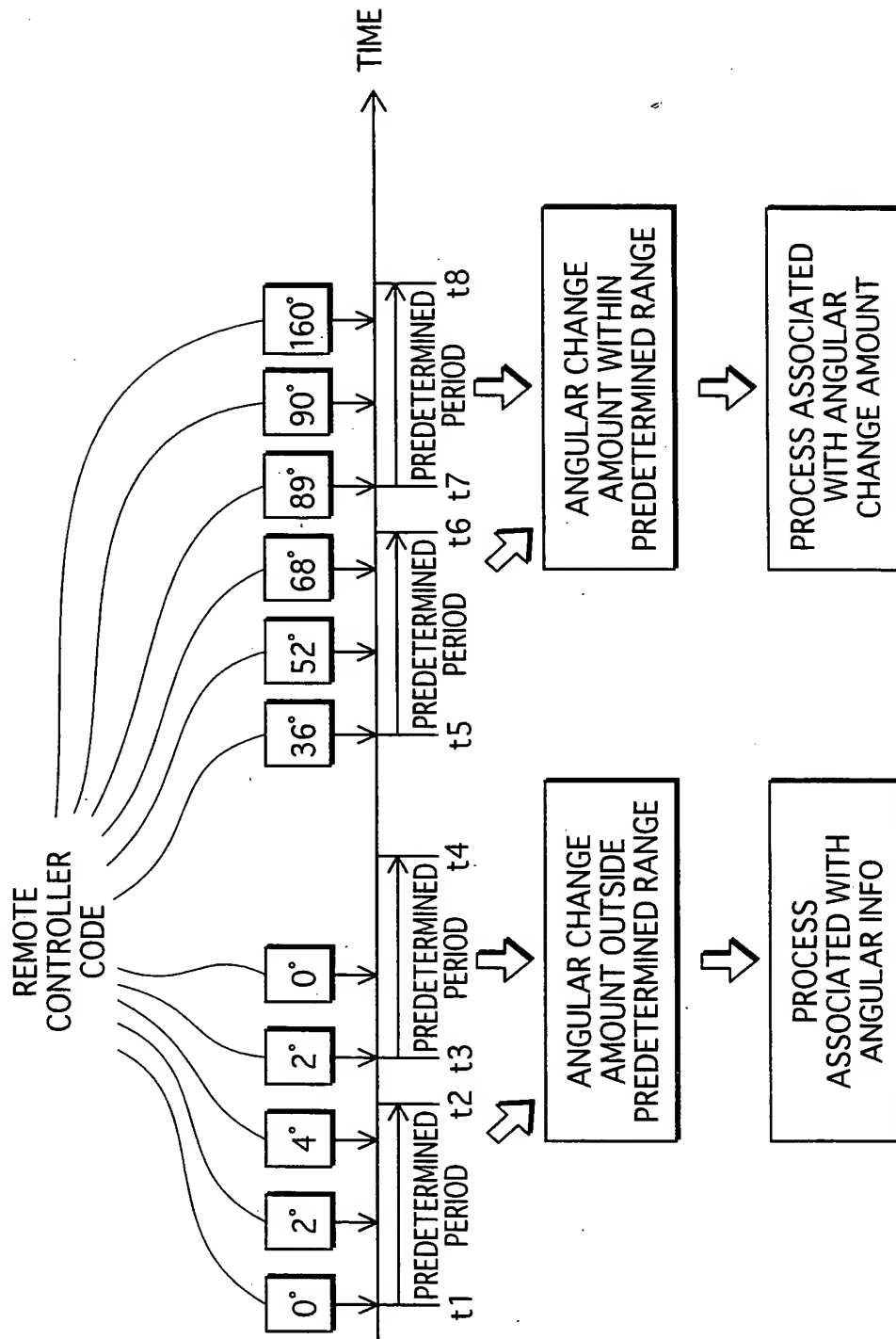


FIG.7



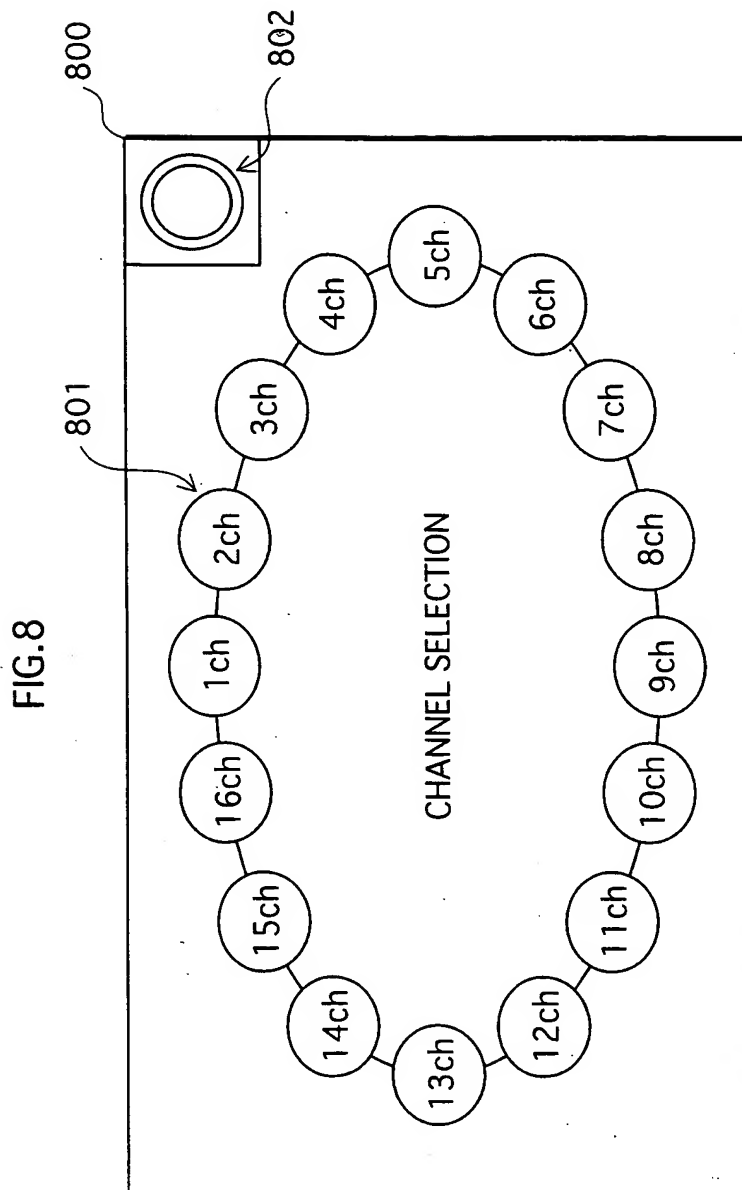




FIG.9

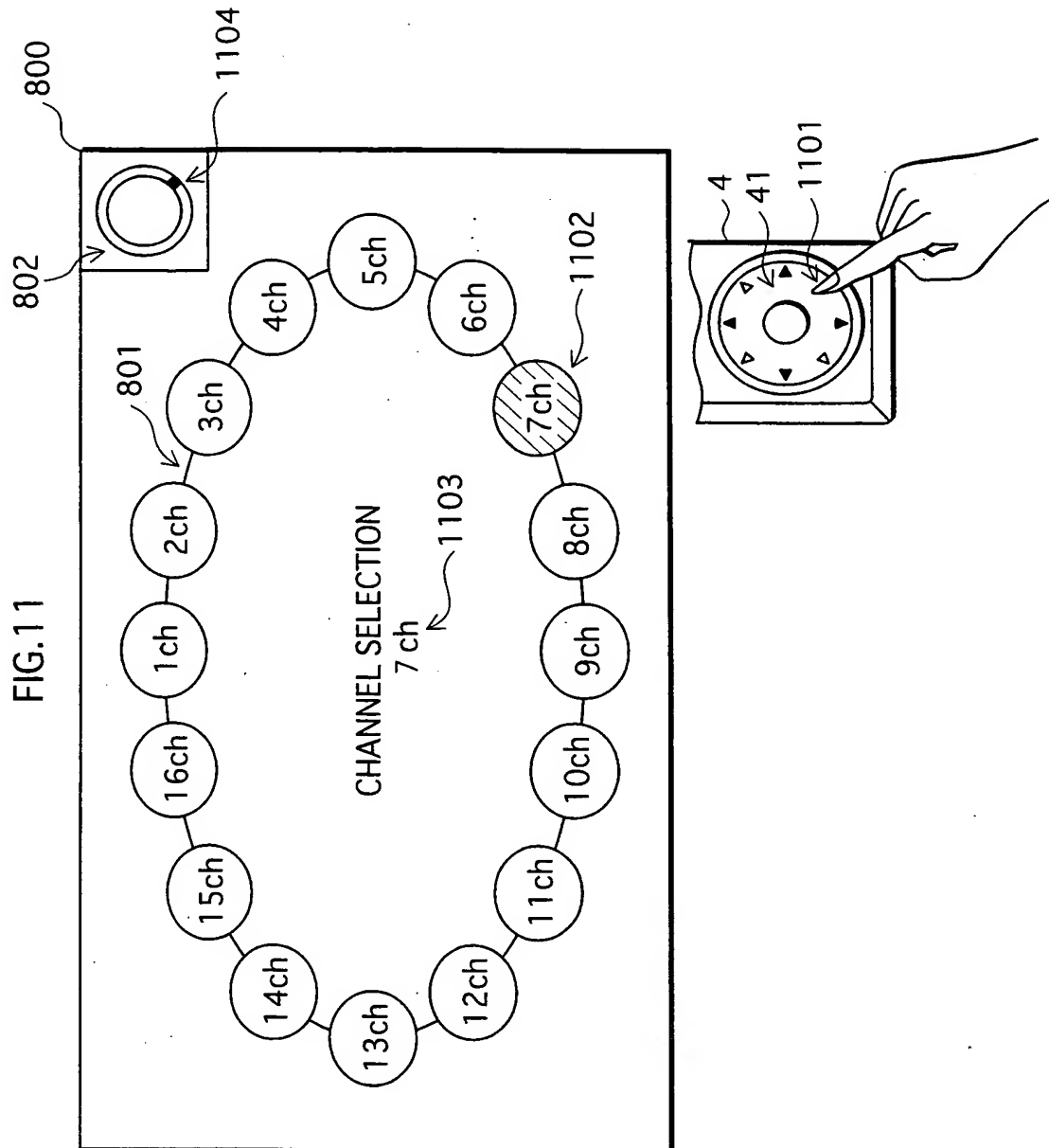
900

ANGULAR INFO	PROCESS
345° ~ 15°	SELECT "1CH"
30° ~ 60°	SELECT "3CH"
75° ~ 105°	SELECT "5CH"
120° ~ 150°	SELECT "7CH"
165° ~ 195°	SELECT "9CH"
210° ~ 240°	SELECT "11CH"
255° ~ 285°	SELECT "13CH"
300° ~ 330°	SELECT "15CH"

FIG.10

1000

ANGULAR CHANGE AMOUNT	PROCESS
$11^{\circ} \sim 60^{\circ}$	MOVE SELECTED POSITION TO 1ST ITEM CLOCKWISE
$61^{\circ} \sim 105^{\circ}$	MOVE SELECTED POSITION TO 2ND ITEM CLOCKWISE
$106^{\circ} \sim 150^{\circ}$	MOVE SELECTED POSITION TO 3RD ITEM CLOCKWISE
$-11^{\circ} \sim -60^{\circ}$	MOVE SELECTED POSITION TO 1ST ITEM COUNTERCLOCKWISE
$-61^{\circ} \sim -105^{\circ}$	MOVE SELECTED POSITION TO 2ND ITEM COUNTERCLOCKWISE
$-106^{\circ} \sim -150^{\circ}$	MOVE SELECTED POSITION TO 3RD ITEM COUNTERCLOCKWISE



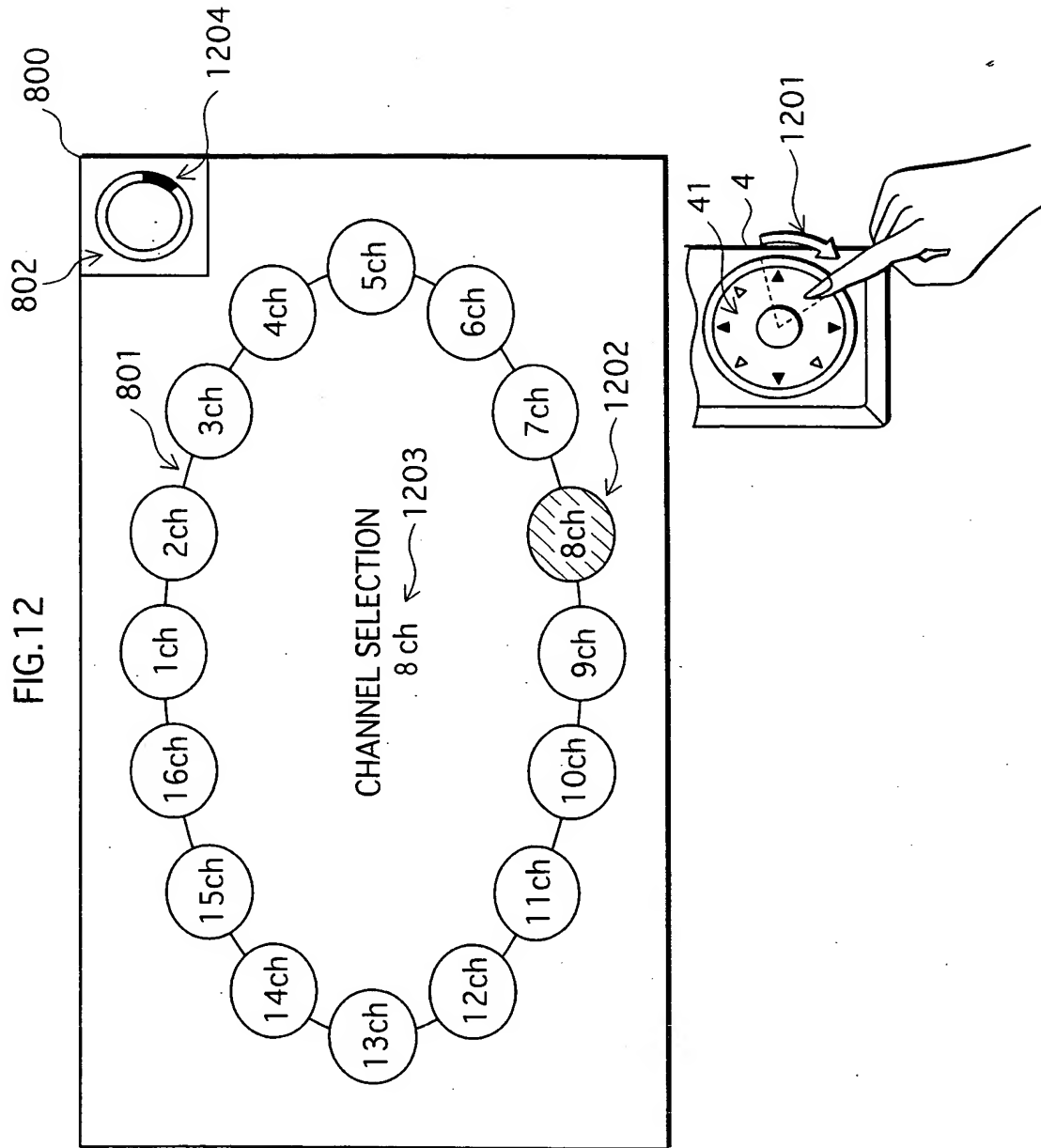


FIG.13

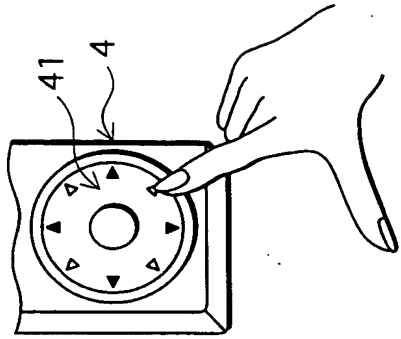
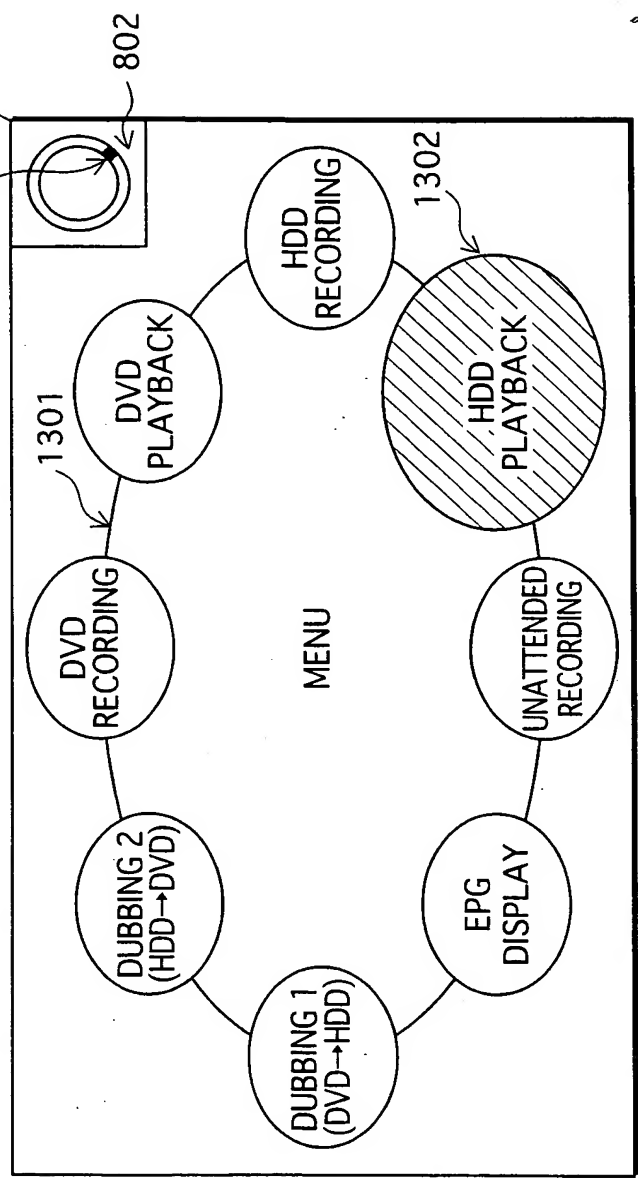


FIG.14

1400

ANGULAR INFO	PROCESS
345° ~ 15°	SELECT "DVD RECORDING"
30° ~ 60°	SELECT "DVD PLAYBACK"
75° ~ 105°	SELECT "HDD RECORDING"
120° ~ 150°	SELECT "HDD PLAYBACK"
165° ~ 195°	SELECT "UNATTENDED RECORDING"
210° ~ 240°	SELECT "EPG DISPLAY"
255° ~ 285°	SELECT "DUBBING 1"
300° ~ 330°	SELECT "DUBBING 2"

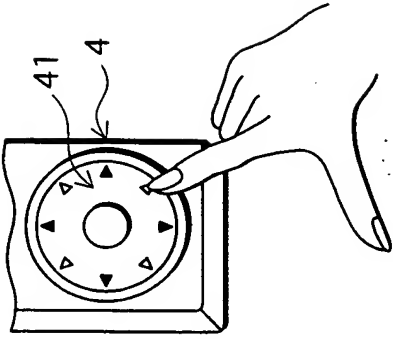
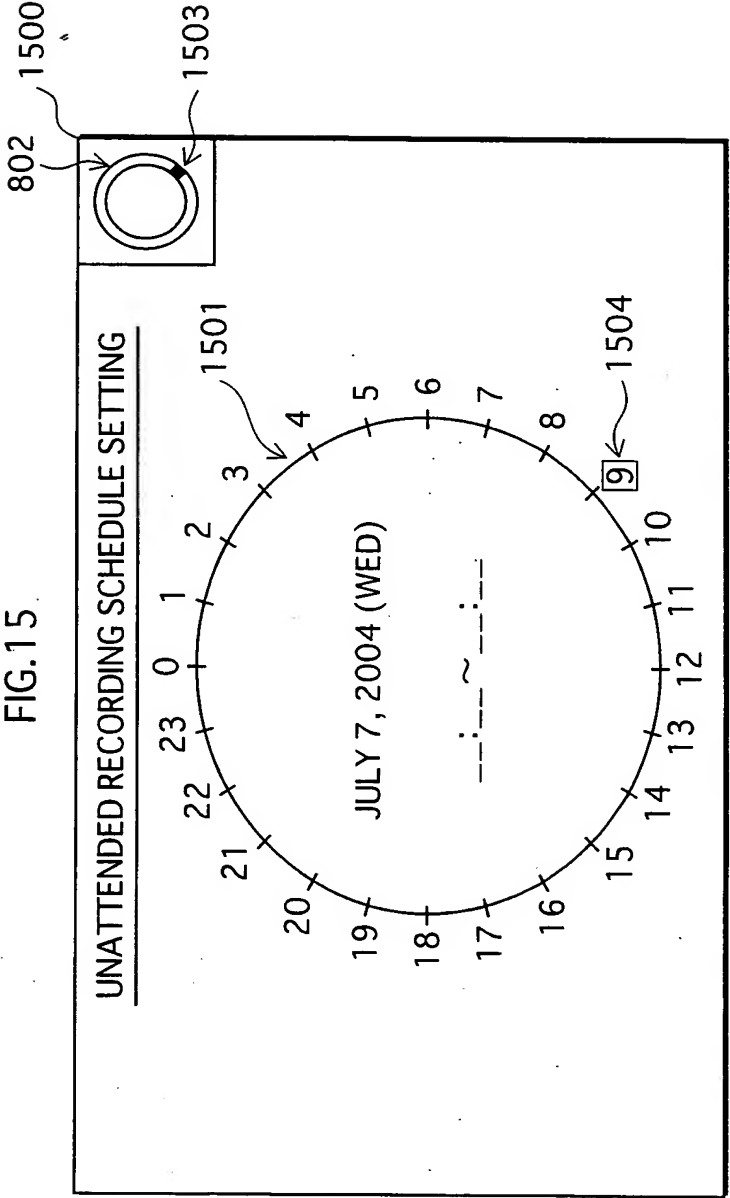


FIG.16

1600

ANGULAR INFO	PROCESS
345° ~ 15°	SELECT "0"
30° ~ 60°	SELECT "3"
75° ~ 105°	SELECT "6"
120° ~ 150°	SELECT "9"
165° ~ 195°	SELECT "12"
210° ~ 240°	SELECT "15"
255° ~ 285°	SELECT "18"
300° ~ 330°	SELECT "21"



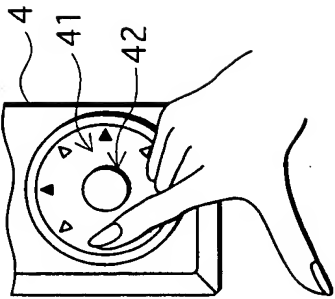
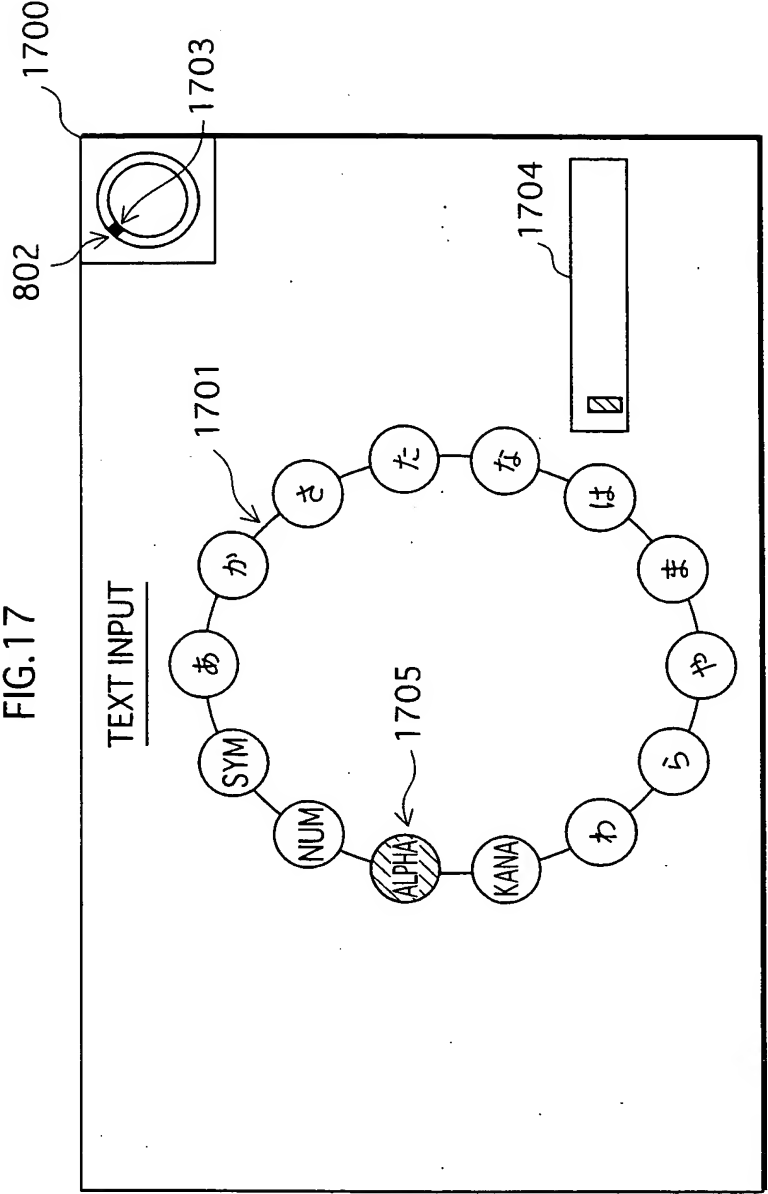


FIG.18

1800

ANGULAR INFO	PROCESS
349° ~ 13°	SELECT “あ” [a] ROW
14° ~ 38°	SELECT “か” [ka] ROW
39° ~ 63°	SELECT “さ” [sa] ROW
64° ~ 88°	SELECT “た” [ta] ROW
89° ~ 113°	SELECT “な” [na] ROW
114° ~ 139°	SELECT “は” [ha] ROW
140° ~ 164°	SELECT “ま” [ma] ROW
165° ~ 192°	SELECT “や” [ya] ROW
193° ~ 218°	SELECT “ら” [ra] ROW
219° ~ 244°	SELECT “わ” [wa] ROW
245° ~ 270°	SELECT “KANA ALPHABET”
271° ~ 298°	SELECT “ALPHABET”
299° ~ 323°	SELECT “NUMERALS”
324° ~ 348°	SELECT “SYMBOLS”

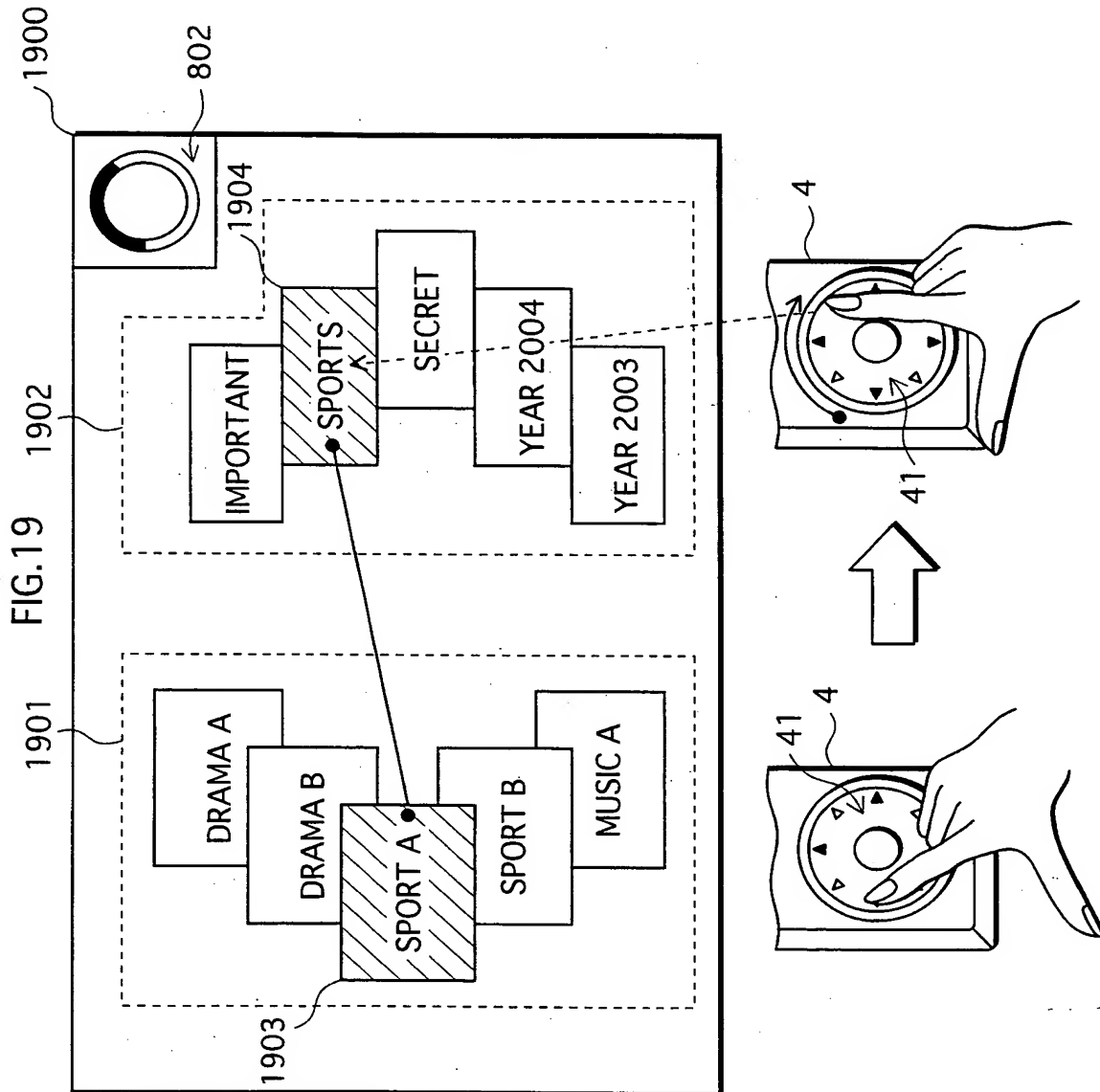


FIG.20

2000

ANGULAR INFO	PROCESS
345° ~ 15°	SELECT "DRAMA A"
300° ~ 330°	SELECT "DRAMA B"
255° ~ 285°	SELECT "SPORT A"
210° ~ 240°	SELECT "SPORT B"
165° ~ 195°	SELECT "MUSIC A"

FIG.21

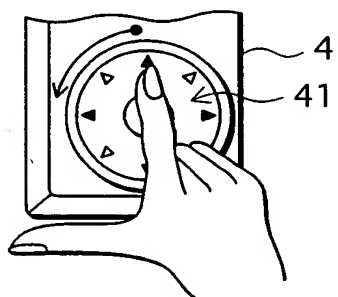
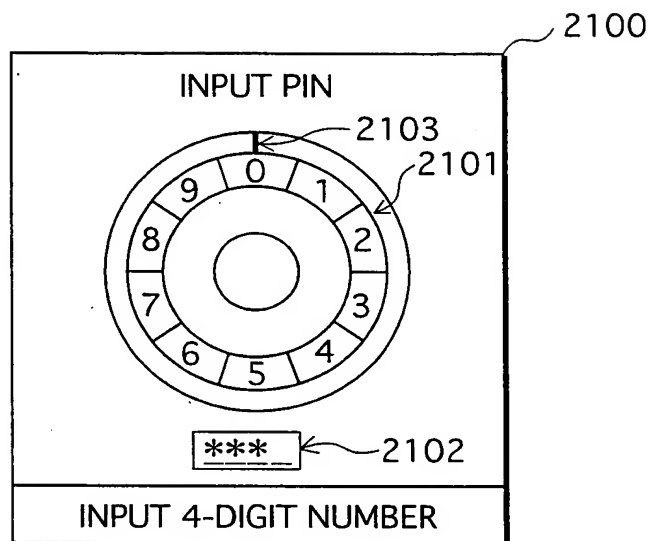
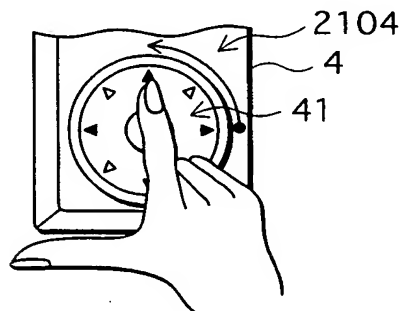
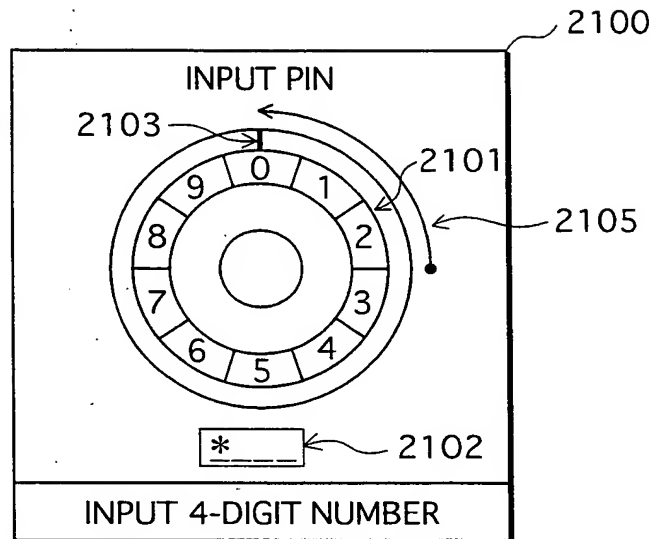


FIG.22

2200

ANGULAR CHANGE AMOUNT	PROCESS
$11^{\circ} \sim 40^{\circ}$	TURN DIAL 2101 ONE MARKING CLOCKWISE
$41^{\circ} \sim 70^{\circ}$	TURN DIAL 2101 TWO MARKINGS CLOCKWISE
$71^{\circ} \sim 100^{\circ}$	TURN DIAL 2101 THREE MARKINGS CLOCKWISE
$101^{\circ} \sim 130^{\circ}$	TURN DIAL 2101 FOUR MARKINGS CLOCKWISE
$131^{\circ} \sim 159^{\circ}$	TURN DIAL 2101 FIVE MARKINGS CLOCKWISE
$-11^{\circ} \sim -40^{\circ}$	TURN DIAL 2101 ONE MARKING COUNTERCLOCKWISE
$-41^{\circ} \sim -70^{\circ}$	TURN DIAL 2101 TWO MARKINGS COUNTERCLOCKWISE
$-71^{\circ} \sim -100^{\circ}$	TURN DIAL 2101 THREE MARKINGS COUNTERCLOCKWISE
$-101^{\circ} \sim -130^{\circ}$	TURN DIAL 2101 FOUR MARKINGS COUNTERCLOCKWISE
$-131^{\circ} \sim -159^{\circ}$	TURN DIAL 2101 FIVE MARKINGS COUNTERCLOCKWISE

FIG.23



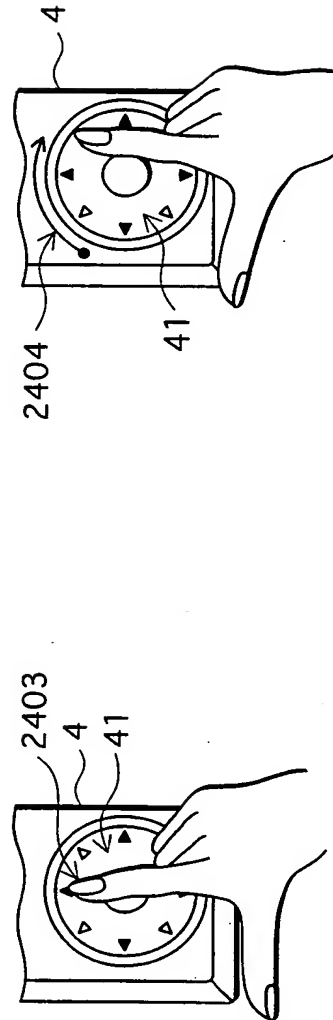
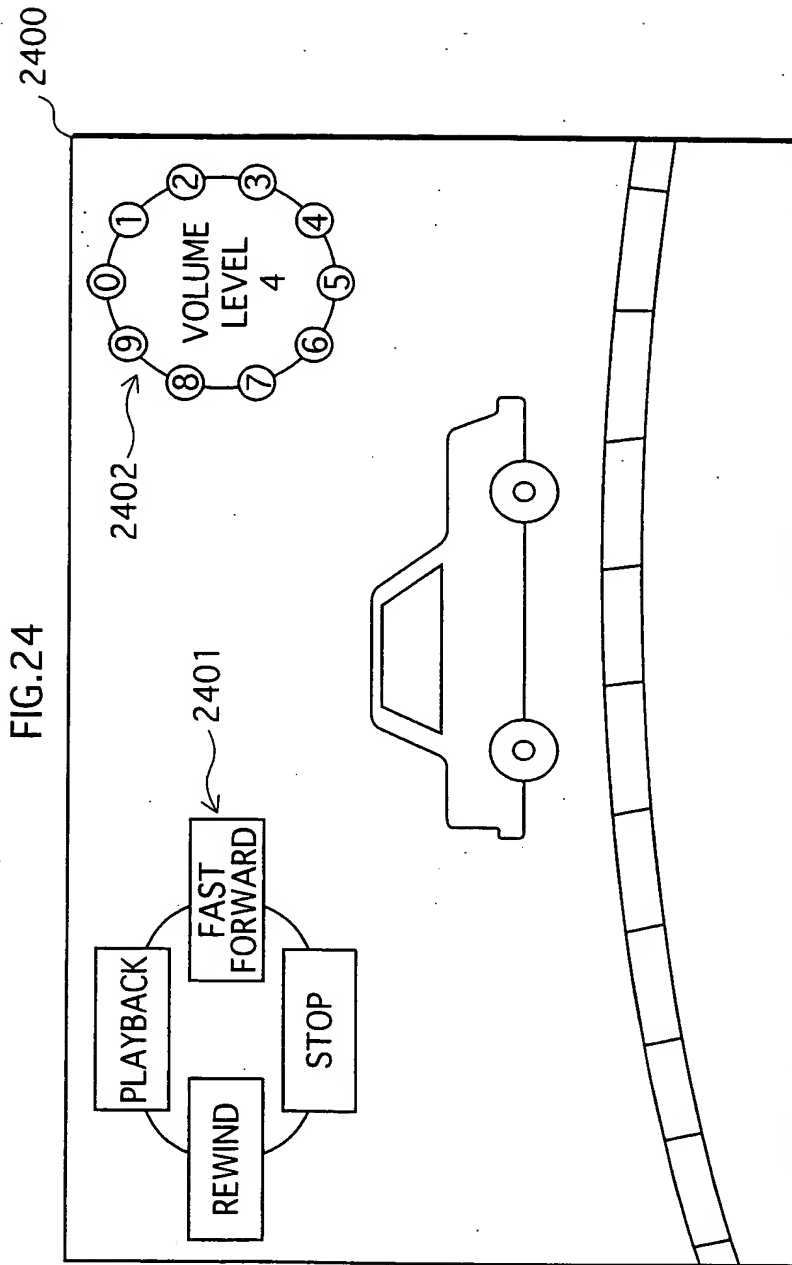




FIG.25

2500

ANGULAR INFO	PROCESS
345° ~ 15°	PLAYBACK
75° ~ 105°	FAST FORWARD
165° ~ 195°	STOP
255° ~ 285°	REWIND

FIG.26

2600

ANGULAR CHANGE AMOUNT	PROCESS
$11^{\circ} \sim 40^{\circ}$	RAISE 1 LEVEL
$41^{\circ} \sim 70^{\circ}$	RAISE 2 LEVELS
$71^{\circ} \sim 100^{\circ}$	RAISE 3 LEVELS
$101^{\circ} \sim 130^{\circ}$	RAISE 4 LEVELS
$131^{\circ} \sim 159^{\circ}$	RAISE 5 LEVELS
$-11^{\circ} \sim -40^{\circ}$	LOWER 1 LEVEL
$-41^{\circ} \sim -70^{\circ}$	LOWER 2 LEVELS
$-71^{\circ} \sim -100^{\circ}$	LOWER 3 LEVELS
$-101^{\circ} \sim -130^{\circ}$	LOWER 4 LEVELS
$-131^{\circ} \sim -159^{\circ}$	LOWER 5 LEVELS

FIG.27

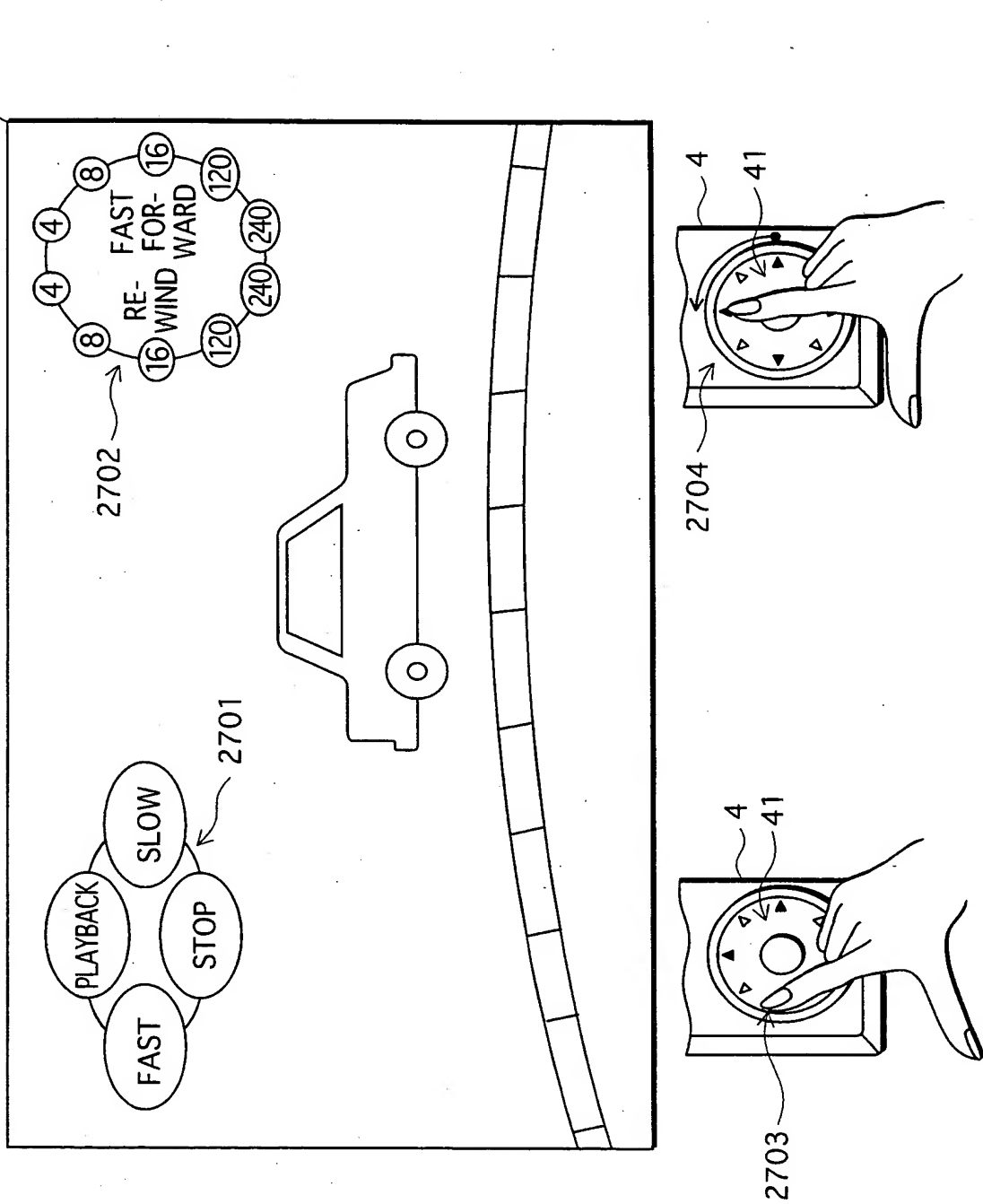


FIG.28

2800

ANGULAR INFO	PROCESS
345° ~ 15°	PLAYBACK
75° ~ 105°	SLOW PLAYBACK
165° ~ 195°	STOP
255° ~ 285°	FAST PLAYBACK

FIG.29

2900

ANGULAR CHANGE AMOUNT	PROCESS
11° ~ 40°	4X SPEED FORWARDING
41° ~ 70°	8X SPEED FORWARDING
71° ~ 100°	16X SPEED FORWARDING
101° ~ 130°	120X SPEED FORWARDING
131° ~ 159°	240X SPEED FORWARDING
-11° ~ -40°	4X SPEED REWINDING
-41° ~ -70°	8X SPEED REWINDING
-71° ~ -100°	16X SPEED REWINDING
-101° ~ -130°	120X SPEED REWINDING
-131° ~ -159°	240X SPEED REWINDING

3000

FIG.30

3002		3003		3001	
1ch	2ch	3ch	4ch		
18:00 ▲ COOKING "COOKING SHOW" ▼	EDUCATIONAL "WITH DAD"	18 O' CLOCK NEWS	EVENING NEWS	18:00 ▲	▼
19:00 QUIZ "GET PRIZES" 3005	TV SHOPPING "BUY & BUY"	PROFESSIONAL BASEBALL NIGHT GAME	VARIETY "LAUGHTER"	19:00	
20:00 ROCK CONCERT LIVE "GUNS"	DOCUMENTARY "TRUE & LIES"		MOVIE "JAWZ"	20:00	
21:00 ▼				21:00 ▼	

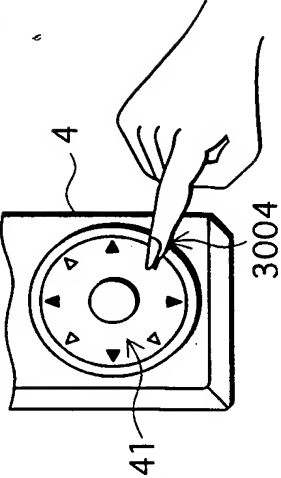


FIG.31

3100

ANGULAR INFO	PROCESS
345° ~ 15°	MOVE SELECTED POSITION TO UPPER CELL
30° ~ 60°	MOVE SELECTED POSITION TO UPPER RIGHT CELL
75° ~ 105°	MOVE SELECTED POSITION TO RIGHT CELL
120° ~ 150°	MOVE SELECTED POSITION TO LOWER RIGHT CELL
165° ~ 195°	MOVE SELECTED POSITION TO LOWER CELL
210° ~ 240°	MOVE SELECTED POSITION TO LOWER LEFT CELL
255° ~ 285°	MOVE SELECTED POSITION TO LEFT CELL
300° ~ 330°	MOVE SELECTED POSITION TO UPPER LEFT CELL

FIG.32

3200

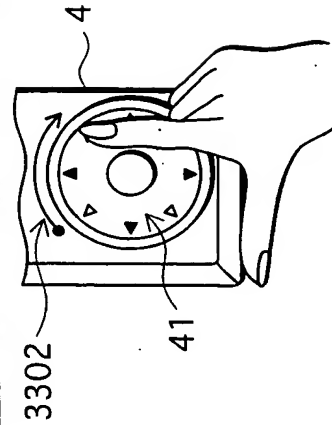
ANGULAR CHANGE AMOUNT	PROCESS
$11^{\circ} \sim 40^{\circ}$	SCALE UP BY 10%
$41^{\circ} \sim 70^{\circ}$	SCALE UP BY 30%
$71^{\circ} \sim 100^{\circ}$	SCALE UP BY 50%
$-11^{\circ} \sim -40^{\circ}$	SCALE DOWN BY 10%
$-41^{\circ} \sim -70^{\circ}$	SCALE DOWN BY 30%
$-71^{\circ} \sim -100^{\circ}$	SCALE DOWN BY 50%



FIG.33

3300

3301				
▼	1ch	2ch	3ch	▲
▲ 18:00	COOKING "COOKING SHOW" BAKED VS MASHED POTATOES	EDUCATIONAL "WITH DAD" -DANCE WITH DAD-	18 O' CLOCK NEWS -TRUTH OF XX MOTORS RECALL COVER-UP-	▲ 18:00
▲ 19:00	QUIZ "GET PRIZES" -TODAY'S PRIZE IS RICE-	TV SHOPPING "BUY & BUY" -WALKY TALKY ON SALE-	PROFESSIONAL BASEBALL NIGHT GAME -KOALAS VS KANGAROOS- (MAY BE EXTENDED UP TO 22:30)	▲ 19:00
▲ 20:00	ROCK CONCERT LIVE "GUNS"	DOCUMENTARY "TRUE & LIES"		▲ 20:00



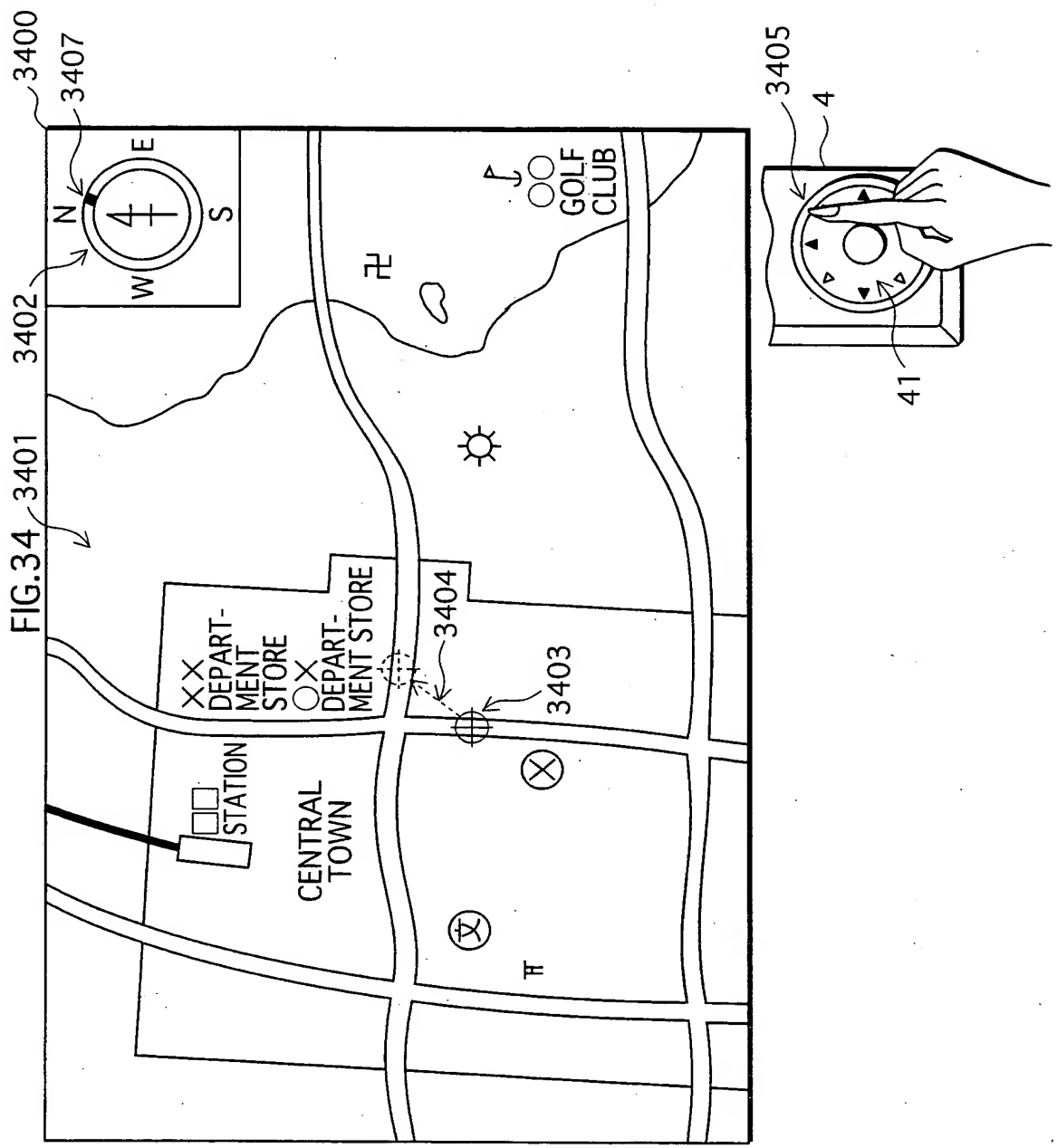
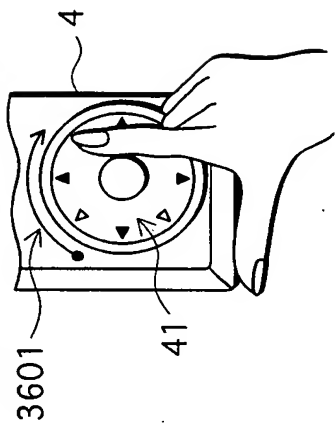
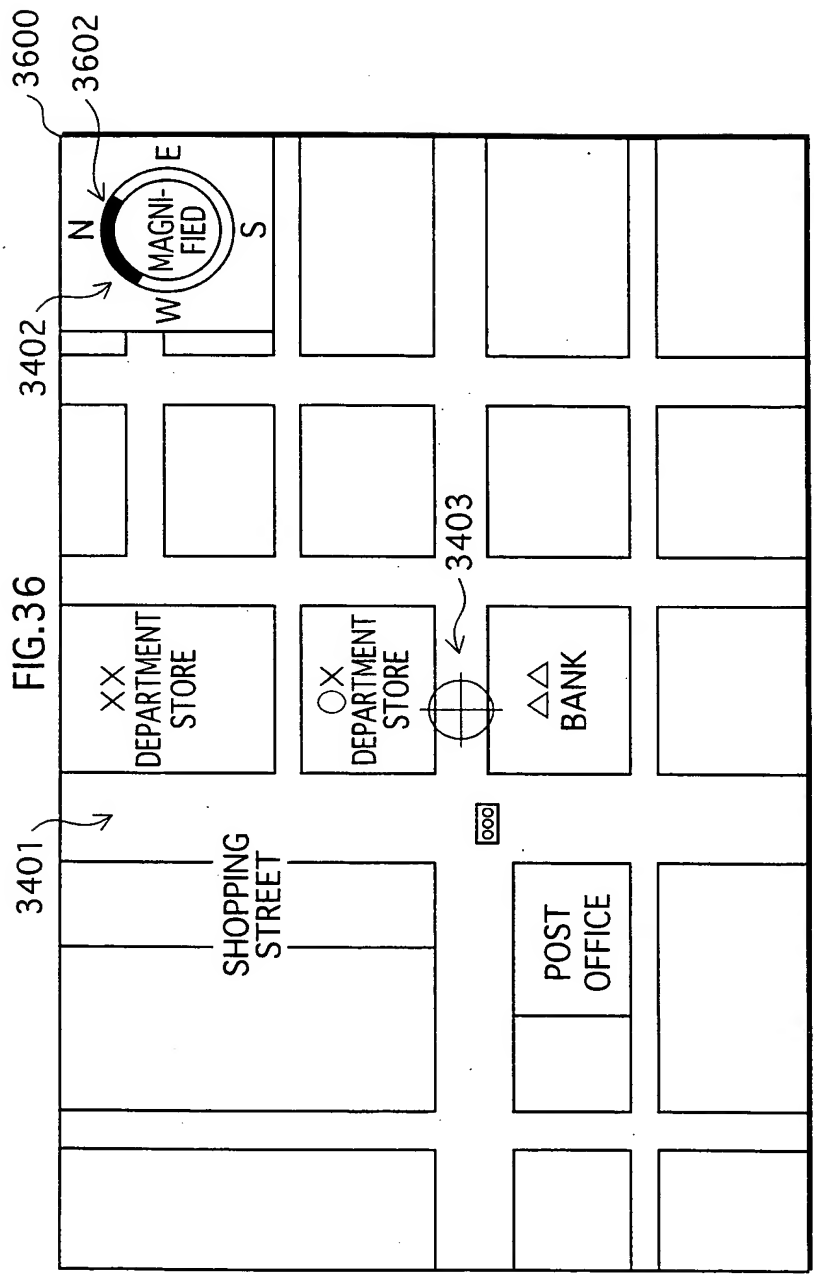


FIG.35

3500

ANGULAR INFO	PROCESS
345° ~ 15°	MOVE CURSOR UP
30° ~ 60°	MOVE CURSOR IN UPPER RIGHT DIRECTION
75° ~ 105°	MOVE CURSOR RIGHT
120° ~ 150°	MOVE CURSOR IN LOWER RIGHT DIRECTION
165° ~ 195°	MOVE CURSOR DOWN
210° ~ 240°	MOVE CURSOR IN LOWER LEFT DIRECTION
255° ~ 285°	MOVE CURSOR LEFT
300° ~ 330°	MOVE CURSOR IN UPPER LEFT DIRECTION



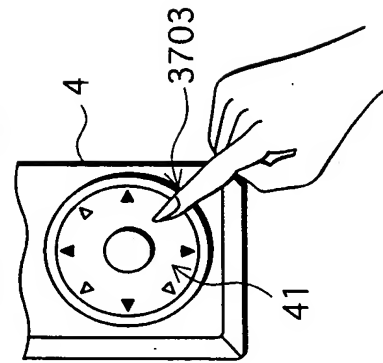
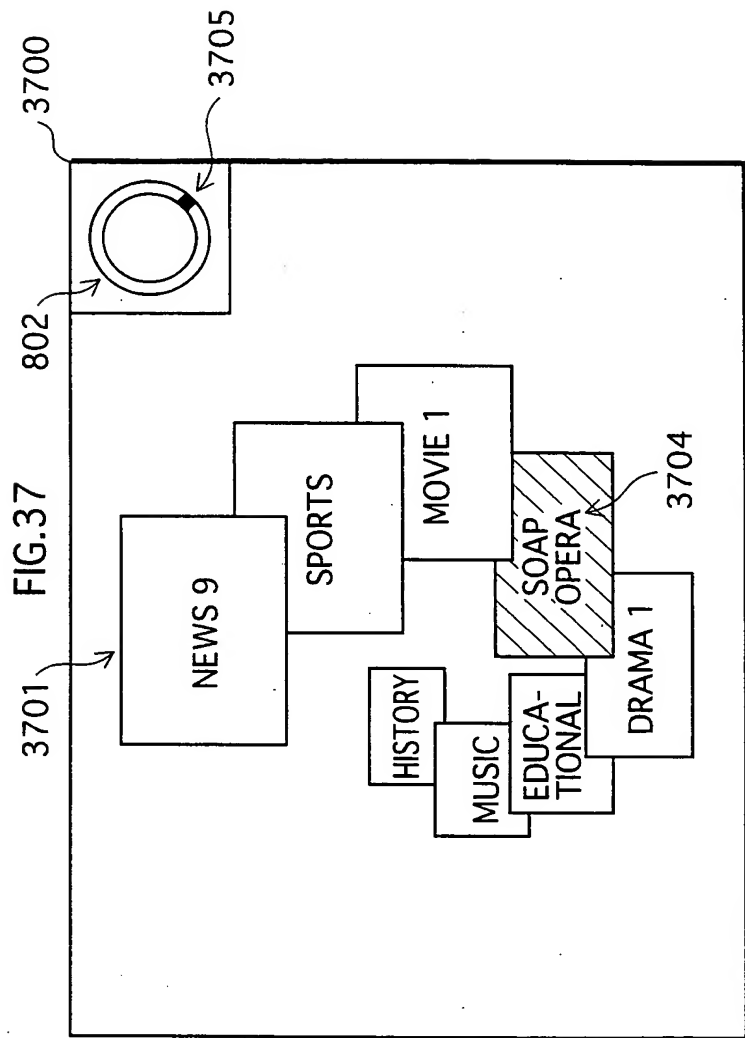


FIG.38

3800

RANK	1	2	3	4	5	6	7	8	9	10	...
CONTENT TITLE	NEWS 9	SPORTS	MOVIE 1	SOAP OPERA	DRAMA 1	EDUCA- TIONAL	MUSIC	HISTORY	MOVIE 2	DRAMA 2	...

OPTION GROUP 1

OPTION GROUP 2

FIG.39

3900

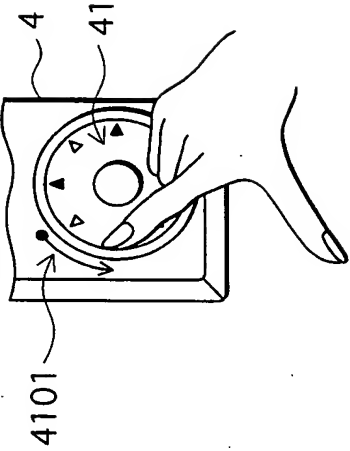
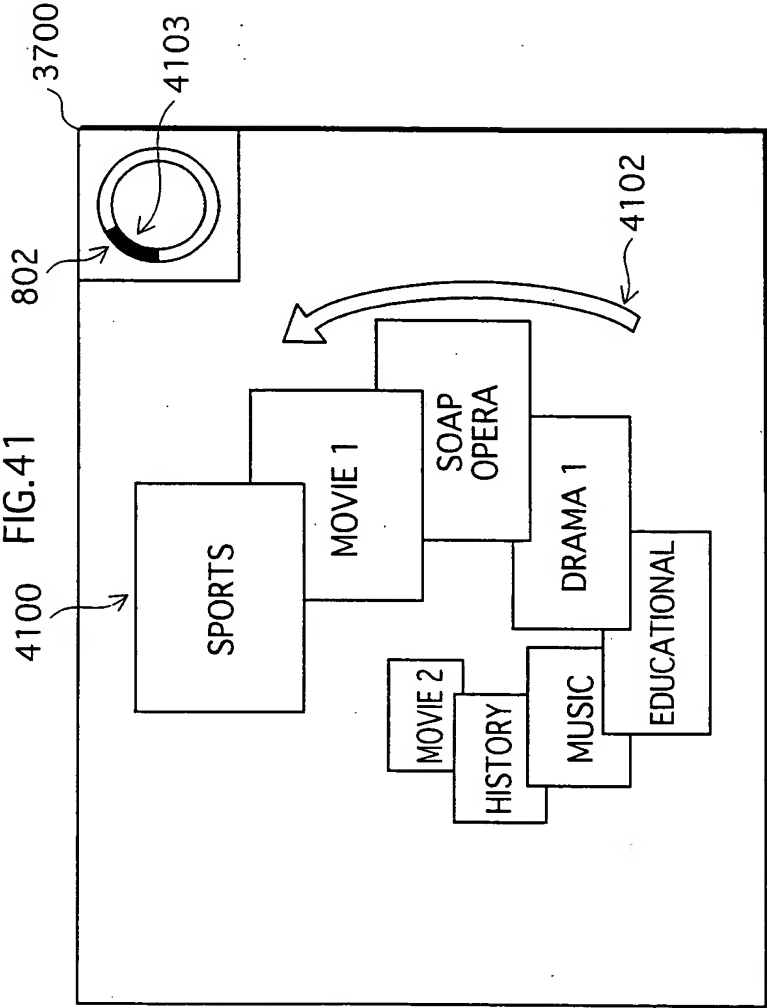
ANGULAR INFO	PROCESS
345° ~ 13°	SELECT "NEWS 9"
30° ~ 60°	SELECT "SPORTS"
75° ~ 105°	SELECT "MOVIE 1"
120° ~ 150°	SELECT "SOAP OPERA"
165° ~ 195°	SELECT "DRAMA 1"
210° ~ 240°	SELECT "EDUCATIONAL"
255° ~ 285°	SELECT "MUSIC"
300° ~ 330°	SELECT "HISTORY"

FIG.40

4000

ANGULAR CHANGE AMOUNT	PROCESS
$11^{\circ} \sim 40^{\circ}$	DISPLAY GROUP OF OPTIONS WITHIN RANKING RANGE LOWER BY ONE
$41^{\circ} \sim 70^{\circ}$	DISPLAY GROUP OF OPTIONS WITHIN RANKING RANGE LOWER BY TWO
$71^{\circ} \sim 100^{\circ}$	DISPLAY GROUP OF OPTIONS WITHIN RANKING RANGE LOWER BY THREE
$101^{\circ} \sim 130^{\circ}$	DISPLAY GROUP OF OPTIONS WITHIN RANKING RANGE LOWER BY FOUR
$131^{\circ} \sim 159^{\circ}$	DISPLAY GROUP OF OPTIONS WITHIN RANKING RANGE LOWER BY FIVE
$-11^{\circ} \sim -40^{\circ}$	DISPLAY GROUP OF OPTIONS WITHIN RANKING RANGE HIGHER BY ONE
$-41^{\circ} \sim -70^{\circ}$	DISPLAY GROUP OF OPTIONS WITHIN RANKING RANGE HIGHER BY TWO
$-71^{\circ} \sim -100^{\circ}$	DISPLAY GROUP OF OPTIONS WITHIN RANKING RANGE HIGHER BY THREE
$-101^{\circ} \sim -130^{\circ}$	DISPLAY GROUP OF OPTIONS WITHIN RANKING RANGE HIGHER BY FOUR
$-131^{\circ} \sim -159^{\circ}$	DISPLAY GROUP OF OPTIONS WITHIN RANKING RANGE HIGHER BY FIVE





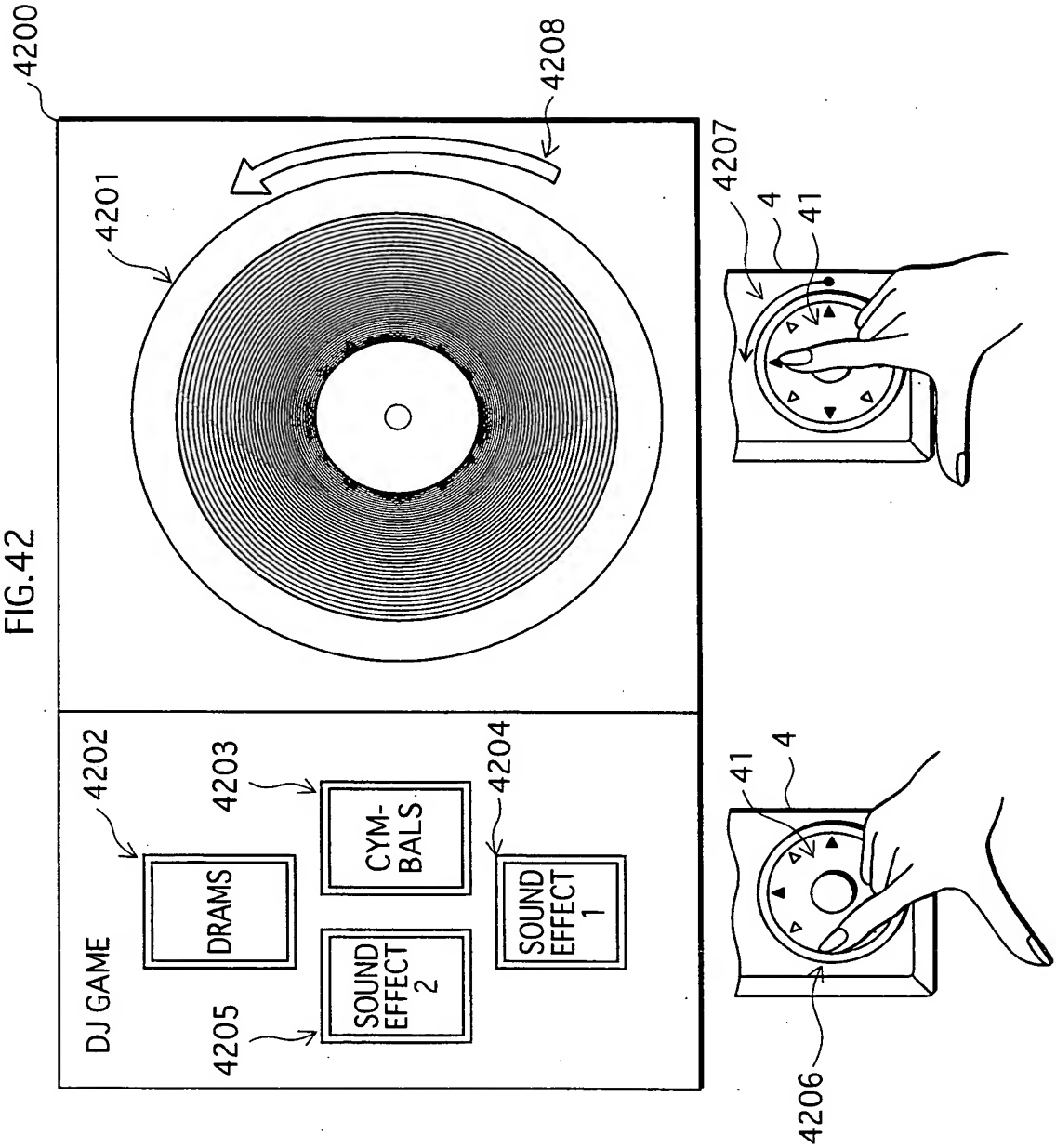


FIG.43

4300

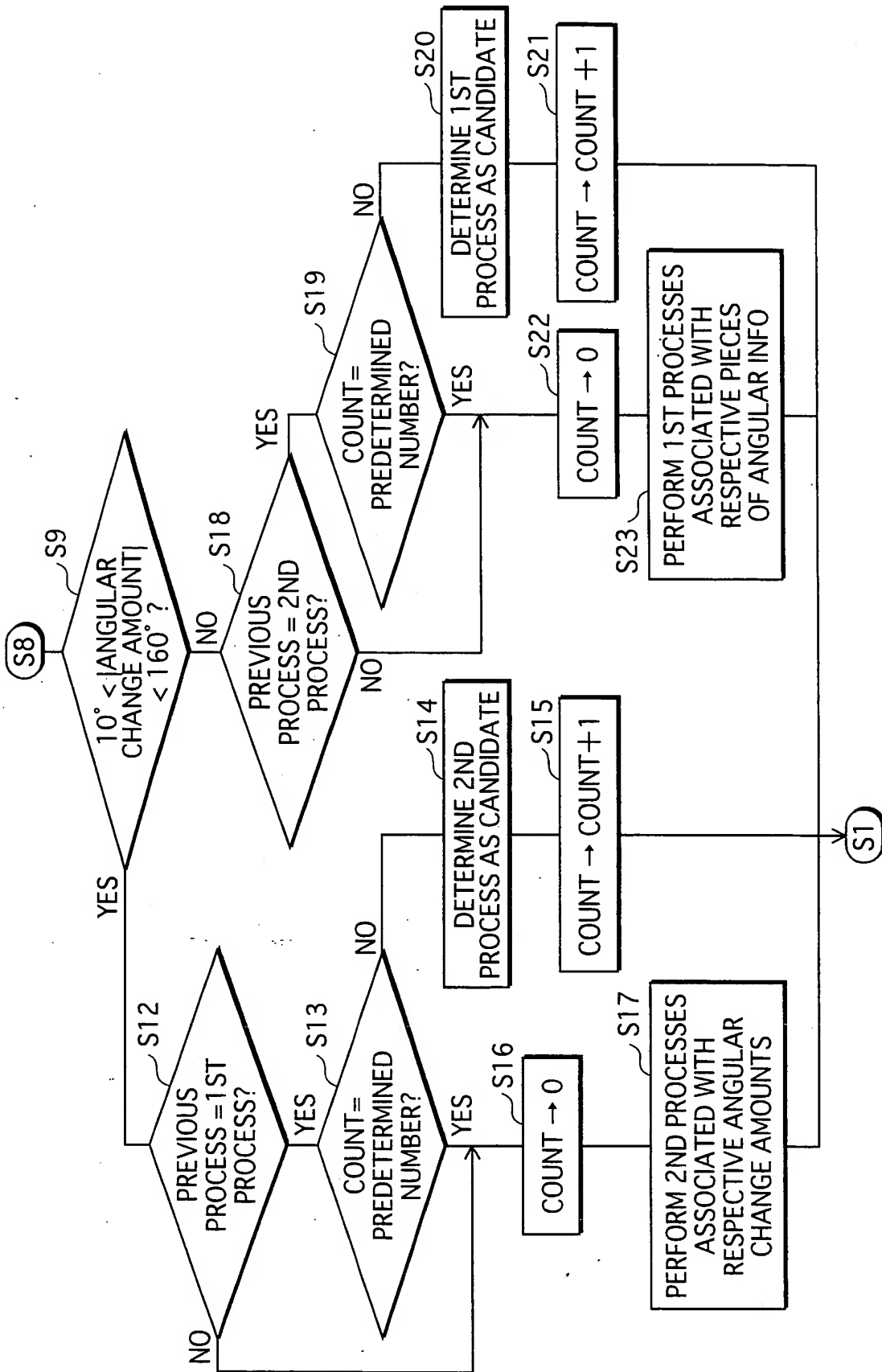
ANGULAR INFO	PROCESS
345° ~ 15°	OUTPUT "DRAMS" SOUND
75° ~ 105°	OUTPUT "CYMBALS" SOUND
165° ~ 195°	OUTPUT "SOUND EFFECT 1"
255° ~ 285°	OUTPUT "SOUND EFFECT 2"

FIG.44

4400

ANGULAR CHANGE AMOUNT	PROCESS
$11^{\circ} \sim 70^{\circ}$	OUTPUT "SCRATCH SOUND 1"
$71^{\circ} \sim 130^{\circ}$	OUTPUT "SCRATCH SOUND 2"
$131^{\circ} \sim 159^{\circ}$	OUTPUT "SCRATCH SOUND 3"
$-11^{\circ} \sim -70^{\circ}$	OUTPUT "SCRATCH SOUND 4"
$-71^{\circ} \sim -130^{\circ}$	OUTPUT "SCRATCH SOUND 5"
$-131^{\circ} \sim -159^{\circ}$	OUTPUT "SCRATCH SOUND 6"

FIG. 45



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